ENVIRONMENTAL OPERATIONS ENGINEER

12. Assure that all regulatory/OxyChem policies/procedures/goals related to Equal Opportunity and the environment are followed.
13. Complete listed Safety/Environmental spreadsheet items for the year to maintain continuous improvement.

C. Qualifications

1. B.S. Degree in Engineering
2. 3 Years of Process Operating/Engineering Desirable

JOB DESCRIPTION

(Note: Subject to Change)

JOB TITLE: ENVIRONMENTAL ENGINEER - WASTE MANAGEMENT

A. GENERAL DESCRIPTION

The Environmental Engineer - Waste Management is cooperatively accountable for achieving the results of the Niagara Plant. The accountability of the position will be fulfilled through the effective operation of the Environmental Control Department. The Environmental Engineer is responsible for the following activities consistent with the OCC Mission Statements & Direction, Management Style and within established OCC and Niagara policy.

B. DUTIES AND RESPONSIBILITIES

1. Maintain compliance with all Part 373, 374 and RCRA permit requirements and hazardous waste regulations. Maintain compliance with all DOT shipping requirements.
2. Manage all the drum & bulk waste generated at the Niagara Plant, Hyde Park and Love Canal and other WNY remedial sites in a cost effective & environmentally sound manner. With Purchasing assistance, manage all waste disposal contracts & approve invoicing.
3. Supervise the hourly & salaried personnel associated with waste management activities to assure plant needs/schedules are met in accordance with plant policy and procedures and conduct training programs for hourly & salaried personnel and contractors to comply with plant rules and regulatory requirements.
4. Interface with government agencies with respect to inspection/reviews and preparing engineering, plant and regulatory reports to conform with Government, Corporate and Plant procedures
5. Prepare pollution reduction/waste minimization report and actively interacts with the Plant to achieve goals.
6. Identify environmental problems and establish and implement action plans for remediation and control and act as project team leader on environmental issues.
7. Maintain listed Safety/Environmental spreadsheet items to achieve continuous improvement.

ENVIRONMENTAL ENGINEER

8. Prepares technical guidance for decision-making purposes to management and demonstrate sound independent skills and judgment in work assignment.
9. Act as task or program leader on projects of major scope and impact in any environmental area.
10. Varied assignments in any environmental area or media.
11. Assure that all regulatory/OxyChem policies/procedures/goals related to Equal Opportunity/Affirmative Action are actively supported.

C. QUALIFICATIONS:

1. B.S. Degree in Engineering
2. 3 Years in Environmental/Operations Experience Desirable

JOB DESCRIPTION

(Note: Subject to Change)

JOB TITLE: ENVIRONMENTAL TECHNICIAN

A. GENERAL DESCRIPTION

Responsible for maintaining a computer records waste management system, assists in solving manifests discrepancies, and coordinates hazardous waste shipping, receiving, storage, and handling operations with area waste disposal coordinators. Reviews daily inspection reports and conducts weekly, quarterly, and annual inspections of hazardous waste storage areas; and manages oil recycling drum recertification programs and drum sampling programs. Also submits reports to immediate supervisors and the NYDEC on-site monitor.

B. DUTIES AND RESPONSIBILITIES

1. Coordinates and performs sampling, inspections, and carries out stipulations of any environmental permit or regulation.
2. Prepares reports, both manually and on a computer for submission to an agency or to fulfill any requirement of a permit or regulation.
3. Prepares daily, monthly and yearly reports at the direction of an engineer, supervisor or superintendent.
4. Prepares manifests and loads of waste for shipment and complies with all regulatory requirements for manifesting, shipment, supplies, etc. to meet plant needs.
5. Maintains all equipment, supplies, etc. to meet plant needs.
6. Performs inspections with regulatory personnel and solves any noted deficiencies immediately. (On-site monitor, etc.).
7. Prepares work orders, PO's directs hourly and contract personnel in compliance with plant procedures.
8. Follow and enforce all SOP's and actively participates in meeting goals of the plant safety and environmental programs and participates on routine housekeeping inspections.
9. Serves on a call-in list and is an active member in the Emergency Plan.
10. Responds to any environmental problem and performs necessary investigations as to cause and mitigation.
11. Does minor maintenance, prepares jobs in compliance with SOP's including hotwork permits, confined space and performs housekeeping.

ENVIRONMENTAL TECHNICIAN

12. Provides technical assistance to individuals in the plant including training of personnel and DPM enforcement.
13. Maintains and operates any treatment or storage system in the environmental dept. (end of line, pH, warehouses, pads, etc.).
14. Trouble shoots any problem with an environmental operations system.
15. Interfaces with lab to meet sample and QA/QC requirements.
16. Performs other tasks as directed by an engineer or superintendent.
17. Assures that all regulatory/OxyChem policies/procedures/goals related to Equal Opportunity and the Environment are followed.

C. QUALIFICATIONS

1. High School Diploma or Equivalent.
2. Two-year College Degree Desirable.

JOB DESCRIPTION

(Note: Subject to Change)

JOB TITLE: ENVIRONMENTAL LABORER

A. GENERAL DESCRIPTION

Prepares, transfers, ships and receives all types of materials. Raw materials, operating materials, containers, supplies, repair materials, products, samples, refuse, residues, etc. May assist in preparing and packaging materials for shipments. Does general Plant housekeeping, cleans and washes containers, tank cars, trailers, process vessels, etc. May also do some minor repairs, painting and packaging. Does janitorial work, laundry work, runs errands and other simple tasks as required. Also does other heavy manual duties throughout the plant. Assists in maintaining the plant pH control by stick measuring a tank trailer, filling this trailer with water, also adds soda ash and sodium bicarbonate to get the proper mix and unloads trailer at site as per dispatcher. Must also drive a forklift.

B. DUTIES AND RESPONSIBILITIES

1. Responsibility

Job requires care in handling materials to prevent injuries to others and prevent waste of materials through carelessness. Uses simple hand tools. Keeps records as per environmental department. Required to operate forklift, very often works near a crew of other men and he must be careful in the manipulation of the equipment to prevent injury to anyone. Care is necessary to avoid damaging materials, equipment, or the machine through rough handling. A regular drivers license (NY) as well as an OXY license is required to operate light equipment.

2. Planning

Usually receives fairly specific instructions from foreman, group leader, leadman, driver, shipper, etc. Could injure others by carelessness or delay others or damage assets. Must use judgement in determining the best and safest way of handling bagged material used in tank trailer loading. Requires knowledge of proper, efficient, and safe method of equipment operation.

ENVIRONMENTAL LABORER

3. Physical Action

Does considerable walking, climbing, lifting, etc. Unloads, loads, cleans, paints, excavates, snow removal, track repairs, etc. Indoors and outdoors in all kinds of weather. Usually manual tasks, sometimes works with others and uses forklift as well as hand equipment.

4. Location

All over the plant. Some hazards involve handling bulky materials and chemicals; exposed to plant conditions. Loads and unloads trailers at predetermined sites throughout the plant.

5. Materials

All materials needed for performance of work.

6. Equipment

All equipment needed for performance work.

7. Facilities

Air, water, steam, vacuum, etc.

C. QUALIFICATIONS

High School Diploma or equivalent.

JOB DESCRIPTION

(Note: Subject to Change)

JOB TITLE: CORROSION ENGINEER

A. GENERAL DESCRIPTION

Responsibilities include the shared accountability for achieving the results of the Niagara Plant. Accountability is fulfilled through effectively providing technical field support to the Maintenance Craft, Operations, Logistical Services, and Engineering Group in the specialized techniques of corrosion detection/control, welding and FRP Quality Control. The individual will also performs Planned Inspections and Corrective Maintenance Programs to assist in achieving a high degree of maintenance reliability at hazardous waste storage areas located at production and waste treatment operations.

B. DUTIES AND RESPONSIBILITIES

1. Maintains and improves overall plant reliability by providing technical support to Production and Maintenance Organizations throughout the plant in the area of corrosion/welding. Provides input in the independent evaluation, selection, adoption, and modification of maintenance techniques, procedures, and criteria and in devising new approaches to encountered problems.

2. Provides training to personnel in Production, Maintenance, and other Organizations, including subordinates, in the proper use and care of equipment relating to the corrosion/welding area. Develops the necessary training methods as required by regulations and good engineering practice. Qualifies NDE Contractors. Qualifies Welding Contractors and Welders.

3. Insures compliance to documented code welding procedures and practices by all personnel involved in welding repair and fabrication.

4. Assists in communicating and auditing audits plans for Preventive/Predictive Maintenance Program on equipment related to his/her area of specialization to optimize reliability and reduce costs. Installs or assists in installation of these programs. Monitors equipment performance and makes necessary changes to plans and programs to improve reliability of equipment.

5. Supports Niagara Plant Engineering in insuring the quality of fabricated equipment, performing failure analysis, and appraising the condition of existing piping and equipment

CORROSION ENGINEER

related to capital projects. Performs inspections services as requested relative to capital projects.

6. Updates files and contributes to the administration of the Niagara Plant Pressure Vessel Program, the Storage Tank Inspection Program, the Pipeline Inspection Program, and the Cathodic Protection System (now combined in "CHEMCIP"). Updates and maintains a computer data base of all equipment in program. Performs detailed visual inspections and audits test results including preventive maintenance pressure vessel tests for tanks and transport trailers used to store hazardous wastes.

7. Participates in establishing contract quality control procedures (such as radiography) to insure the adherence to safe practices.

8. Participates in cost control and reduction programs. Specifically defines problems and, when possible, recommends corrective action.

9. Recommends suitable materials of construction (MOC) for chemical plants and processes to optimize economical life and comply with safety and loss prevention policies and procedures.

10. Performs quality assurance/quality control (QA/QC) inspections on new fabricated equipment

11. Performs QA/QC on construction projects and maintenance repairs, and on rail car coatings, linings and repairs.

12. Communicates the design and technical issues to other Engineering functions and plants through reports, memos and presentations in a manner that is concise, factual and effective.

13. Takes an active interest in the affairs of professional societies and in improving technical proficiency through self-study.

14. Implements and interprets reports of non-destructive testing (NDT) methods and inspections at vendor or contract facilities and field areas to assure conformance to appropriate specifications and codes.

15. Manages all administrative functions for the Inspection Services Group.

ADDITIONAL TASKS:

1. **Assignment, Review and Approval of Work** - Fulfills responsibilities with minimum supervision. Initial review of long range assignments to verify priority and consistency of plans with overall plant goals.

CORROSION ENGINEER

2. **General** - Minimum travel; mostly within the Western New York area.

3. **Relationships With Outside Organizations** - Major emphasis on technical interfacing with insurance carrier, vendors, fabricators, and suppliers. Close association with plant engineering.

4. **Specialized or Technical Knowledge** - Maintains a minimum qualification as ASNT Level II Inspector in all pertinent NDE disciplines. Education in Metallurgy helpful. Preferably an A.A.S Degree in Material Engineering or a relevant B.S. Degree.

5. **Relationship of Position to Others in its Function** - Normal progression is Corrosion Technician, Associate Corrosion Engineer, Corrosion Engineer.

6. **Major or Unusual Problems** - Balance a multi-project workload involving various sponsoring departments.

7. **Sources of Support** - Associate Corrosion Engineer, Corrosion Technician, Superintendent of Central Maintenance Services, CMS Administrative Assistant, Mechanical Staff Engineer, Plant Engineering Manager and staff of Materials Evaluation Lab, Niagara Welding Department.

8. **Decision-Making Authority** - Provides input on equipment condemnation and repair procedures. Has "Stop Work" authority for all welding done at the Niagara Plant. Accepts or rejects fabricated units from the aspect of proper Engineering Practices and workman's hip.

C. QUALIFICATIONS

1. High school diploma or equivalent.

2. Bachelor or Science Degree in Engineering is required; M.S. or A.S. in Metallurgy and MBA or other business training desirable.

ATTACHMENT D1
CONTAINER MANAGEMENT

D 001

ATTACHMENT D1
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D1-2.1.1 Container Specifications

Six (6) types of containerized waste are stored on the various container storage areas located throughout the plant. These containerized wastes consist of the following:

a. Metal Drums - With the exception of the remediation wastes stored in the T-Area and U-Area North, the majority of containerized plant waste consists of solid material which is sent to contract disposal firms for disposal in a secure landfill or for treatment. As environmental regulations prohibit the disposal of free liquids in landfills, any free liquids are stabilized using commercially available clay absorbents or other solidifying agents at the time of generation, or at the contract disposal facility. These solid wastes are stored in 55- or 85-gallon drums prior to shipment. All drums are properly labeled before shipment. A typical drum label is shown in Figure D1-1.

Waste solids sent off-site for disposal are shipped in DOT Specification 55- or 85-gallon drums (Specification Sheets B-1 and B-2 in Appendix D1-I are typical examples). DOT Specification drums meet or exceed the requirements for all solid wastes that OCC handles.

A limited number of drums containing liquids and sludges are also sent for incineration and other forms of treatment off-site. Liquids are shipped in DOT Specification drums. (For typical examples, see SpecificationSheets B-3 through B-5 in Appendix D1-I.) Sludges are shipped in DOT Specification drums (Specification Sheets B-1 and B-2 are typical examples). In both cases, the specified drums meet or exceed the requirements for all sludges and liquids that OCC handles.

The drums used are new DOT drums. At no time is waste placed in any unwashed container that previously held incompatible material.

Note: When drums are to be used for long-term storage of waste solids (i.e., PCDD/PCDF waste), minimum twelve (12) ml polyethylene liners are used to protect the drum from corrosion due to moisture in the waste. (See Appendix D1-II for vendor literature on drum liner specifications.) All other hazardous and nonhazardous waste solids will utilize the same polyethylene liner to line the drum for added protection.

b. Fiber pack or plastic containers - Approximately thirty (30) gallons in size containing solid materials are sometimes used when the waste is destined for incineration at an off-site solids incinerator. Fifty-five (55) gallon plastic drums may also be used. For example, see specifications sheet provided in Appendix D1-1.

7. U-90

- Permanent building with dimension 60' x 325'
- type of waste stored: process and remedial
- maximum stored volume: solids 335,280 gal; liquids 111,760 gal

8. T-20 Unloading Pad

- curbed concrete pad with a size of 308 square feet
- type of waste stored: process and remedial
- maximum stored volume: 10,000 gal liquid

9. T-28

- temporary buildings with dimension 88.6' x 403.5'
- type of waste stored: remedial
- maximum stored volume: 20,000 cubic yards solid per building

The following are past permitted container storage areas that are no longer used:

- T-29;
- Building V-60;
- Building U-67 third floor PCB storage page;
- Building U-67 second floor south PCB storage pad;
- Building U-67 second floor north PCB storage pad;
- Building T-27 drum storage;
- Pilot treatment study area;
- F-Area Pad;
- U-Area Pad;
- U-42/47;
- U-88;
- Building V-61
- V-81 Pad; and
- U-91

SECTION D1-1 - CONTAINER MANAGEMENT

D1-1.1 CONTAINER STORAGE AREAS

A listing and detailed description of the container storage areas at the Plant is provided in Attachment D2. A summary of each is provided below.

1. M-Area

- Curbed concrete pad with dimensions 20' x 50'
- type of waste stored: process
- maximum stored volume: solids, 15,400 gal; liquids 7,700 gal

2. C-Area

- Curbed concrete pad with dimensions 20.8' x 30'
- type of waste stored: process
- maximum stored volume: solids 11,000 gal; liquids 5,500 gal.

3. U-67 Trailer Pad

- Curbed concrete pad with dimensions 64' x 56'
- type of waste stored: process and remedial
- maximum stored volume: 26,000 gal of liquid

4. N-Area

- Curbed concrete pad with dimensions 29.3' x 22.7'
- type of waste stored: process
- maximum stored volume: solids 10,120 gal; liquids 5,060 gal in drums or 8,540 gal in drums and tanks.

5. Incinerator Unloading Pad

- curbed concrete pad with dimensions 40' x 47'
- type of waste stored: process and remedial
- maximum stored volume: 15,000 gal liquid

6. T-Area Storage Pad

- sealed asphalt pad with a size of 25,000 square feet
- type of waste stored: process and remedial
- maximum stored volume: 1320 tons solid

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SECTION D1-1
CONTAINER MANAGEMENT

APPENDICES

D1-I. TYPICAL DRUM SPECIFICATION SHEETS

D1-II. LINER SPECIFICATION

D1-III. PORTABLE TANK AND FILTER PRESS SPECIFICATIONS AND DRAWINGS

HAZARDOUS WASTE - Federal Law prohibits improper disposal. If found, contact the nearest police or public safety authority or the U.S. Environmental Protection Agency.

Generator's Name and Address
EPA Waste Number
Manifest Document Number.

Before being received at the T-Area Rolloff Storage Pad, each container will be visually inspected to be sure that the cover is properly sealed and that there is no damage that can lead to leakage of precipitation into the container. The hinged door will be inspected for proper sealing, and proper labelling will be verified.

Once accepted, the containers will be set in place with proper spacing for inspection. They will not be stacked, and a unique identification number will be marked on the front end.

Each container will be set on four (4) load pads, one (1) under each corner. The pads will be steel plate approximately 1/2" x 2' x 2'.

d. Filter press

Only waste that is compatible with the filter press materials of construction will be treated in this system. The wastes will be analyzed in accordance with procedures outlined in the Waste Analysis Plan, Attachment A1. Secondary containment for the system will be provided by the concrete dike around the U-67 trailer pad which is designed for a maximum of four (4) trailers. The trailer pad is capable of containing over one hundred percent of the capacity of the filter press plus the rainfall from a 25 year, 24 hour storm.

Depending on need, similar units may be used at other areas of the Plant to facilitate tank inspections required by NYSLBS, OSHA process safety management program, 373 inspection program, and to facilitate shutdown and maintenance necessary for the safe operation of Plant facilities. Use of other units will be performed in one of the permitted containment areas or a temporary containment area.

The filter press will be owned and operated by either OCC or a commercial vendor experienced in this field.

D1-2.1.3 Containment System Design and Operation

Data Sheets located in Attachment D2 provide containment system design and operating information for the pads, container storage buildings and the liquid waste incinerator unloading pad. Drawings follow each data sheet to show the size and orientation of each pad and how the pallets of drums will be laid out.

All of the pads are constructed of reinforced concrete and are crack free, except the T-Area Rolloff Storage Pad, T-28, which are impervious asphalt surfaces. Previous construction and experience has demonstrated the imperviousness of concrete and these sealing materials to OCC waste products.

The storage pads are all raised above their immediate surroundings and incorporate curbing and sloped floors to provide liquid and rainfall containment. All areas include dead-end sumps for further spills, leak and precipitation containment. The drums are all stored on pallets to prevent liquid contact.

The storage buildings U-90, and T-28, are all roofed, thus eliminating the influence of rainfall. All these areas are curbed for spill containment.

Table D1-2 summarizes both the storage and containment capacities of the storage facilities. Assuming all the containerized waste stored in these areas is liquid, the ten (10) percent containment requirement can be met by single-stacking the liquid drums. Only liquid-free debris (e.g., rocks) are placed in the large containers on the T-Area Rolloff Storage Pad, so the pad is designed only to contain rainwater and not ten (10) percent of the container volume.

The storage areas are all capable of containing the rainfall from a twenty-five (25)-year, twenty-four (24)-hour storm without overflow. These areas are inspected as outlined in Attachment B of this permit. To prevent the overflow of the collection system from a rainfall event the water accumulated is pumped out and handled in accordance with criteria described on the container storage area data sheets in Section D2-1.

Note: Special Requirements For PCB Wastes

Immediately upon generation each container and each article removed from service that contains PCBs MUST be marked with the date and have an approved PCB sticker attached to it per 40 CFR 761.40. All containers that store PCB wastes may be stored temporarily on the Area Pad for less than 90 days. After that date and it is recommended as soon as possible after generation, PCB contaminated drums must be moved to the designated storage location found in building U-90. These locations are marked as required per 40 CFR 761.40(a)(10).

All damaged drums or handling equipment that have come in contact with PCB's will remain in the PCB storage area in which it was used, unless it has been decontaminated by triple rinsing with an appropriate solvent.

b. Bags

The bags in the Bag Storage Building will be managed as containers. The bags of materials will be transported like containers. Although the site remediation activities are beyond the scope of this permit, the soils and sediments being excavated will be scrutinized for any objects that might penetrate the bags. In addition, the soils will be observed for sharp objects prior to bagging. If any sharp objects are seen, they will be removed. When the soils and sediments are being loaded into the bags, an observer will be used to spot sharp objects. If any are found, they will be removed from the bags before rupture of the liner occurs. After the bags are filled, they will be inspected for punctures. If any punctures are found, the bag will be repaired or the contents of the bag will be transferred to another bag.

In order to minimize damage to bags during handling and storage, all operators of forklifts, trucks, cranes, and other such equipment will have been trained. The training and licensing program is the subject of Niagara Plant Safety Regulation 12, which has already been included in Appendix B-II of Attachment B. Additional Information concerning bag handling procedures is presented in Section D1-1.1.1.g.

c. Rolloffs/Lugger Boxes

The present containers on the T-Area Rolloff Storage Pad contain only liquid-free debris (e.g., concrete chunks, tires, incinerator brick, piping, empty drums, PPE) from the plant and OCC remediation sites. Efforts will be made to remove excess soil and sediment prior to the debris being loaded. In the future, once the present containers have been shipped this pad will be used for temporary storage of rolloff containers generated by future remedial activities and during normal plant operations. Covers will be kept closed at all times, except when being inspected for accumulation of free liquids. Inspections are performed as described in Section B-1.2, to verify that the containers, aisles, and pad are in good condition and that there is no indication of leakage into the containers.

Each container will be properly labeled. In addition, a label will be placed on each side of the container with the following information:

Environmental Engineer will schedule their movement and have these new drums inspected upon their arrival as follows to insure they are in the correct condition for storage and shipment:

(1). Visually check the following:

i) Drum condition (i.e., damage or severe rusting)
ii) Waste code and date of filling is legible and marked on the top and sides of the drum.

(2). Check that the top ring is in place and tight. Also check the bungs for tightness.

(3).Place each drum on a pallet by waste code and locate the pallet to prevent compatibility problems.

At no time are containers handled in a manner that would cause them to rupture or leak. Drums are stored on pallets to elevate them and prevent contact with standing liquids or any incompatible material that may spill nearby. Solid containers may be stored double-height to conserve pad space. Liquid containers are stored single-height on the area pads to meet containment and to prevent contamination of bottom drums. Solid drums will be stored triple-height in drum warehouse U-90 to provide the needed capacity. Liquids are only single stacked.

The satellite pads are to be kept clean and free of spilled material. Any leaker will be transferred to another drum. Weekly inspections will be made for inventory purposes and to ensure the wastes are properly contained and the drums are in good condition.

Drums stored on the satellite pads will be picked up on a regular schedule (usually within one (1) month) and normally transferred to the U-90 Drum Storage and Shipping Warehouse. All drums will be checked for drum condition, proper waste code and fill dates, and that they are sealed tightly upon their arrival. All problem drums will be returned to the generating area for remediation.

At the warehouse, drums that are waiting approval are stored indoors to prevent weathering. They are stored on pallets to prevent mixing of incompatible wastes should a spill occur.

As an added precaution when they first arrive at the warehouse, drums are placed on pallets and grouped by waste code, then each pallet is assigned a storage row within the warehouse. This way wastes are separated in the warehouse by hazard (See Section D2-2).

All waste container shipments are normally loaded from this central warehouse and shipped directly to the designated disposal/treatment location. Prior to loading for shipment, the proper DOT and waste labels and markings will be placed on each drum as required. The facility also has the capability to load directly into trailers by use of a portable ramp.

The dimensions of the bags, when empty, are approximately forty-one (41) inches wide, forty-one (41) inches deep and forty-eight (48) inches high. However, when the bags are full, they expand to an overall dimension of approximately fifty-one (51) inches wide, fifty-one (51) inches deep and forty-five (45) inches high, with a resulting full capacity of approximately 2.5 cubic yards. The bags are designed to hold a total weight of six thousand (6,000) pounds. The results of strength tests of the bag performed by the bag manufacturer indicate that the six thousand (6000)-pound design strength represents a factor of safety of approximately five (5) against the ultimate rupture of the bags. The bag top is of a duffel style with a plastic coated wire tie for closure. The bottom is plain with no discharge spouts or openings.

The bags will be partially filled to volume of 1.5 to 2.5 cubic yards per bag. The weight of material per bag will be between four thousand (4000) and six thousand (6000) pounds with a typical weight of 4600 lbs or 1 ton/cu. yd.

All bags are properly labeled. Each bag is numbered sequentially and pertinent information is recorded in a log system kept at the Niagara Falls plant. In addition, a tag will be placed on each bag with the following information:

HAZARDOUS WASTE - Federal law prohibits improper disposal. If found, contact the nearest police or public safety authority or the U.S. Environmental Protection Agency.

Generator's Name and Address
EPA Waste Number
Manifest Document Number.

D1-2.1.2 Management Practices

a. Drums

During accumulation, drums are always kept closed except when it is necessary to add waste. Prior to shipment, waste destined for landfill disposal or off-site incineration makes several intermediate stops. Waste destined for landfill may be stabilized to remove free liquids or mixed with soda ash or sodium bicarbonate for neutralization, if required, before it is placed into 55-gallon steel drums. The drums are sealed, and the waste code number and date of generation are marked on the top and sides of the drums (if hazardous, marked with the words "Hazardous Waste"). Liquid wastes for off-site treatment or incineration are handled in a similar manner, except they are not stabilized. Incompatible wastes are never placed in the same container, and wastes are never placed in unwashed drums that previously held incompatible materials (See Section D1-1.1.1 for drum descriptions).

Properly packaged and marked drums are inspected to verify if free liquids are present (both solid and liquid drums), and then transferred by forklift or by handtruck from the site of generation to the area satellite container storage pads for temporary storage. When drums are ready to be moved to the container storage areas, the generator will notify the Area Waste Manager or Environmental Engineer. The Area Waste Manager or

TABLE D1-1
Bulk Liquid Shipping Container Specifications

Description	D.O.T. Standard (NON-FLAMMABLE LIQUIDS)			D.O.T. 57 (Flammable Liquids)		
	Model 3200	Model 4400	Model 5200	Model 3257	Model 4457	Model 5257
Capacity, gallons:	325	440	525	325	440	525
D.O.T. Classification:	52	52	52	57	57	57
Size: Height (Overall):	52	70"	70"	56"	74"	74"
Width and Length	42 x 42"	42" x 42"	42 x 48"	42 x 42"	42 x 42"	42 x 48"
Leg Height	8"	8"	8"	8"	8"	8"
Floor space - cubic feet:	12	12	14	12	12	14
Weight, lbs. (Rated Gross):	6,670	8,560	10,980	7,575	9,575	12,200
Weight, lbs. (Tare, Approx.):	540	660	720	585	710	760
Construction:	Carbon Steel-MS-ASTM-A569			Carbon Steel-MS-ASTM-A569		
Bottom:	7 Gauge			7 Gauge		
Top and Shell:	10 Gauge			10 Gauge		
Legs w/ Fork Deflector:	7 Gauge			7 Gauge		
Stacking Ring:	(Optional) 7 Gauge			7 Gauge		
Cover Assembly:	16" dia. Flat w/ Ring & Bolt			20" dia. w/ 10" Fill		
Cover Chains:	Optional			Optional		
Cover Padlock Provision:	Optional			Optional		
Bottom Drain Size:	2" Schedule 40" Nipple			2" Schedule ____ Elbow		
Bottom Valve Guard:	8" High w/ Fork Deflector			8" High w/ Fork Deflector		
Design Pressure: (ASME)	9.5 PSIG			9.5 PSIG		
Front Drain Provision:	Optional			Optional		
Heating Coil:	Optional			Optional		
Internal Tank Lining:	Epoxy & Phenolic (Optional)			Epoxy & Phenolic (Optional)		
Safety Vent, Emergency:	Optional			10,000 cu. ft. P/H @ 5 PSI		
Pressure Vent:	Optional			2,900 cu. ft. P/H @ 3 PSI		
Vacuum Vent:	Optional			2,775 cu. ft. P/H @ 3 PSI		
Stacking Height (Full):	3 high			3 high		
Top Fill Opening:	Optional 2" N.P.T.			10" (Standard)		

D.O.T. Design Tank Testing:
All models of Itasco's new portable liquid shipping tanks have successfully passed the following design tests as required by the Department of Transportation. All tests were conducted on a completely filled tank.

(1) - 2 Foot Drop Test on One Corner Leg
(2) - Hydrostatic Pressure Test
(3) - Vibration Test
(4) - Stacking Tanks 3 High

c. Portable containers - Three hundred and twenty five (325) to five hundred twenty-five (525) gallon portable containers are used to collect low volume liquid waste (less than ninety (90) day storage) for either transfer to a tank truck or direct shipment to the on-site liquid waste incinerator. The information and Drawings C-55242 and D-55239 located in Appendix D1-III provide typical materials of construction and specification for these portable containers. A typical bulk liquid shipping container specification is shown in Table D1-I. Consolidation of wastes contained in portable containers will be performed on a RCRA pad or other suitable contained area. Other suitable contained areas may include any impermeable surface with berms designed to accommodate the required volume per 373-2.9 based on the volume of materials being consolidated. The contained area may be a permanent area (concrete or asphalt surface) or a temporary area composed of a liner wrapped around timber berms.

d. Bulk solid metal containers - Covered roll-off boxes or lugger boxes are used to store certain contaminated waste solids (i.e., soils and carbon). These containers will also be used on the T-Area Rolloff Storage Pad to store liquid-free debris from remediation and construction sites in the Niagara Falls area. Each of the ten (10) to fifty (50)-cubic-yard steel containers will contain less than twenty (20) tons of material and will be transported and positioned upon shipment with standard roll-off or lugger box vehicles.

The dimensions of the containers vary. The containers are watertight by welded fabrication, with the exception that the back wall is hinged and sealed with a Neoprene seal. Basic specifications for the containers are presented on Specification Sheet B-7 (Appendix D1-I). The tops will be either fabric or metal lids, designed to prevent precipitation leakage into the containers. Fabric covers will be of sturdy, UV protected material mounted on arched frames, or similar, to prevent water accumulation and sufficient to withstand snow loading and will be used for waste stored for a short period of time (less than 270 days). Metal tops will be used for wastes stored for greater than 270 days. Any liquid accumulation on fabric covers will be removed after cessation of precipitation. Fabric covers will be securely fastened and will be repaired or replaced when damaged.

e. Bulk liquid residue trailers - DOT-approved metal trailers ranging in size from three thousand three hundred fifty (3350) to five thousand one hundred (5,100) gallons are used to move liquid burnable wastes to OCC's on-site liquid waste incinerator. These trailers are staged (stored) at the liquid waste incinerator pad (3 trailer capacity), U-67 carbon treatment pad (4 trailer capacity) or T-20 pad (2 trailer capacity) for periods of time incidental to incinerator operations.

f. Bags - Various bulk solids such as soils and sediments from remediation activities are stored in the Bag Storage Buildings (T-28) . The lined synthetic bags are made of a woven polypropylene outer shell with an eight (8)-mil-thick polyethylene inner liner (Specification Sheet B-6 in Appendix D1-I). The bags can be handled by forklift or crane.

FIGURE D1-1

TYPICAL DRUM LABEL

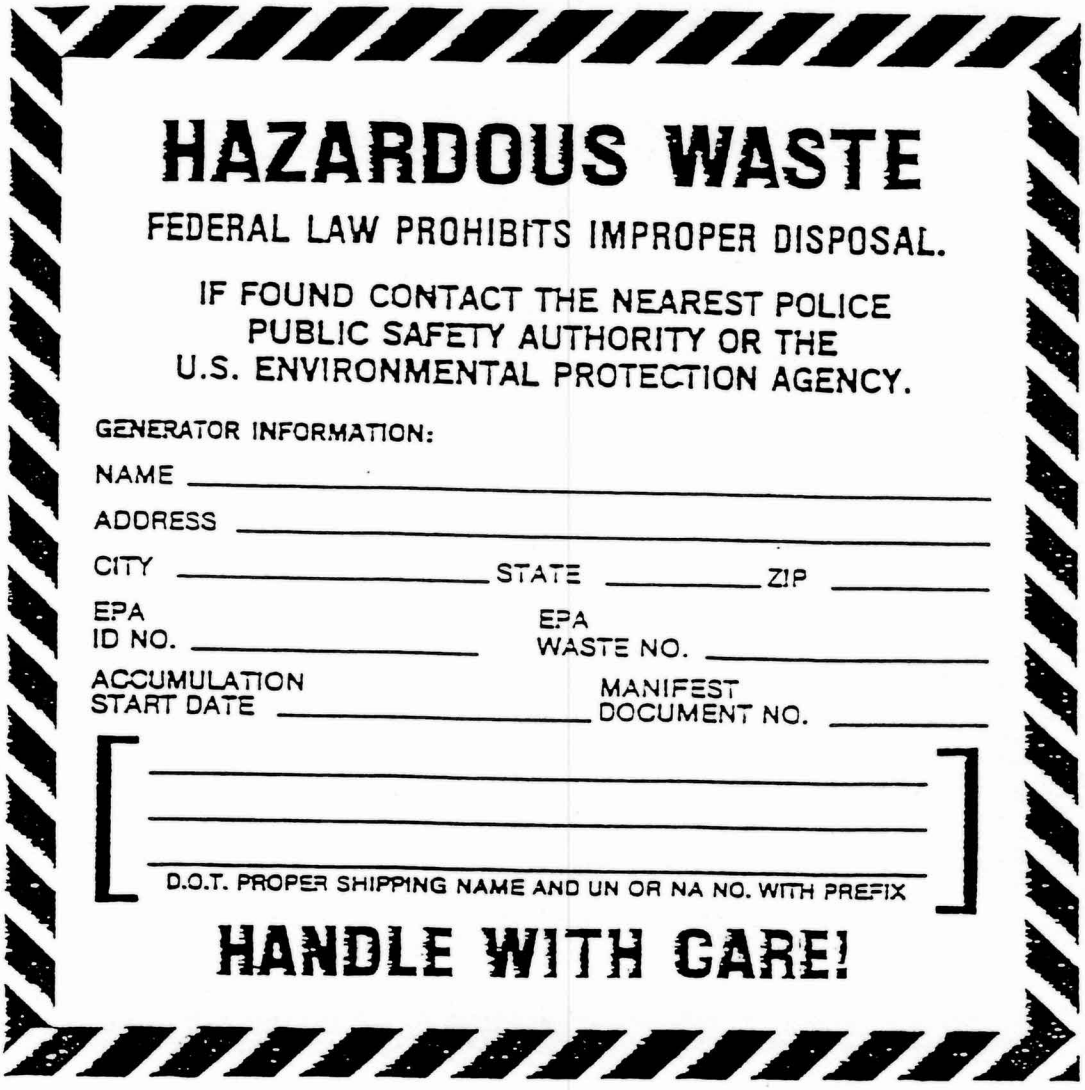

TABLE D1-2

SUMMARY OF STORAGE FACILITY DATA

Name of Pad	Pad Size** (Sq. Ft.)	Rainfall from 25 Yr, 24 Hr Storm (Gallons)	Empty Pad Containment Capacity (Gallons)	Max. No. of Pallets (on Pad Surface)	Pad Containment Less Pallet Displacement (at Max. Storage)	Drum Storage Capacity		Total Required Volume (9)	Containment (%)
						Solids (Double Stack)	Liquids (Single Stack)		
M-Area	1060.89	2642.86	5998.90	35	5785.05	280	140	3412.86	170
C-Area	861.67	2146.56	3741.90	25	3589.15	200	100	2696.56	133
N-Area	720.00	1793.64	3192.01	23	3051.48	184	92	2299.64	133
Incinerator Unloading Pad	1911	4760.00	12471 (11)	NA (2)	7047.75	NA (6)	NA (4)	9,760.00	128
T-28 Building	35,750	NA (1)	NA(7)	NA(7)	NA(7)	NA(7)	NA (3)	11,127.00	(***)
T-Area Container Pad	25,000	62,271	171,419	NA (2)	113,830	NA (8)	NA (3)	62,271.00	547
U-90 Building	17,162	NA (1)	64,186	536	60,911	6096 (*)	2032	11,176.00	545
T-20 Pad	1103.5	2724	7890	NA (2)	7890	NA (6)	NA (5)	3,724.00	211
U-67 Trailer Pad	3,672	9,064	18,767	NA (2)	18,767	NA (6)	NA (10)	15,564.00	121

(1) Not applicable indoor storage.
(2) Not applicable only rolloff or residue trailer storage.
(3) Not applicable only solids stored here.
(4) 3 x 5000 gallon residue trailers maximum in storage.
(5) Zero drums, 2 - 5000 gallon tank trailers only.
(6) Not applicable only liquids stored here.
(7) Currently only bag storage
(8) Zero drums - maximum of 100 - 30 cu. yd. rolloffs only.
(9) Total required volume is 100% of largest tank, or 10% of total liquid volume stored plus rainfall from 25 yr. 24 hour storm.
(10) Zero drums - 4-6,500 gallon tank trailers.
(11) Capacity is composed of 7047.75 gallons from incinerator unloading pad plus 5423 gallons from the incinerator containment area.
* Triple stacking of solids drum will take place in certain areas of these buildings.
** Square footage includes area of dike wells which slope into the dikes.
25 years, 24 hour storm = .167 inch/hr. x 24 hr/day = 4 inch/day = 0.333 ft./day.
*** None required. No free liquids.

Revised by NYSDEC July 1999

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APPENDIX D1-I

TYPICAL DRUM SPECIFICATION SHEETS